

ABSTRACT

A nozzle orifice of a nozzle (1) ~~comprises~~ includes a tapered segment (16) extending from an elliptical discharge orifice (15) and having a taper angle θ of 30 to 80°, and a large-diameter segment (18) continuing with the tapered segment, ~~segment, and scale on a steel plate is removed by discharging water from the nozzle at a distance between discharge orifice 15 and the steel plate of not more than 600 mm, a pressure of 5 to 30 MPa, and a discharge flow rate of 40 to 200 //minute.~~ The ratio of the inner diameter of large-diameter segment (18) relative to the minor diameter of the discharge orifice (15) is not less than 3 and less than 7. Also, the discharge flow from the nozzle spreads in a single direction (width direction) within a plane perpendicular to the central axis of the nozzle and the erosion thickness angle is 1.5 to 3° in the direction (thickness direction) perpendicular to the width direction. Such a descaling nozzle enables that scale is removed efficiently at low pressure and/or low flow rate while restraining the cooling of a steel plate.

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